ELSEVIER

Volume 331, 15 October 1998

thin solid films

Contents

Preface ix

Organisers x

Molecular nanostructures and their electrical probing
D.M. Taylor 1

Electrical properties of C_{22}-quinolinium(TCNQ) and polyamic acid alkylamine salts Langmuir–Blodgett films
T.W. Kim, H.-S. Lee, D.-H. Byun, D.-Y. Kang 8

Nano-electrostatic phenomena in Langmuir–Blodgett films
M. Iwamoto, E. Itoh 15

Unified surface anchoring energy of a nematic liquid crystal slab: surface-induced optical switching and director distribution
A. Sugimura, P.J. Le Masurier, T. Miyamoto, M. Tsuji 25

Structures and electrical properties of arachidic acid Langmuir–Blodgett films with cyanine dyes prepared by applying bias voltages
K. Kato, M. Abe, K. Obata, K. Shinbo, F. Kaneko, S. Kobayashi 32

Real-time observation of the dielectric constant variation of evaporated polydiacetylene films during photopolymerization and photochromic transitions
M. Haraguchi, T. Okamoto, H. Hayashi, T. Hasegawa, T. Akamatsu, M. Fukui, T. Koda, K. Takeda 39

Density of states and tunneling spectroscopy on molecular nanostructures
S. Roth, S. Blumentritt, M. Burghard, O. Jaschinski, K. Liu, J. Muster, G. Philipp, F. Zha, P. Redlich, D.L. Carrol, P.M. Ajayan, S. Curran, G. Düsberg 45

Schottky gate static induction transistor using copper phthalocyanine films
K. Kudo, D. Xing Wang, M. Iizuka, S. Kuniyoshi, K. Tanaka 51

Device characteristics and its operation mechanism of a FET-type waveguide modulator using α-sexithienyl
T. Kurata, C. Fukada, H. Fuchigami, K. Hamano, S. Tsunoda 55

Near-ultraviolet electroluminescence from polysilanes
H. Suzuki, S. Hoshino, C.-H. Yuan, M. Fujiki, S. Toyoda, N. Matsumoto 64

Photocurrent multiplication phenomena at organic/metal and organic/organic interfaces
M. Hiramoto, K. Nakayama, I. Sato, H. Kumaoka, M. Yokoyama 71

Photoinduced charge separation in photovoltaic cell with heterojunction of p- and n-type conjugated polymers
M. Onoda, K. Tada, A.A. Zakhidov, K. Yoshino 76

Transient photoconductivity study of localized-state distributions in metallophthalocyanines
H. Naito, K.-h. Kishimoto, T. Nagase 82

Organic electroluminescent device with R-G-B emission
Y. Ohmori, N. Tada, A. Fujii, H. Ueta, T. Sawatani, K. Yoshino 89

Effect of Al/LiF Cathodes on emission efficiency of organic EL devices
M. Matsumura, K. Furukawa, Y. Jinde 96

Light emitting devices using vacuum deposited organic thin films
P.E. Burrows, V. Bulović, G. Gu, V. Kozlov, S.R. Forrest, M.E. Thompson 101

Vapor-deposited poly(*N*-vinylcarbazole) films for hole transport layer in organic electroluminescent devices
N. Hanai, M. Sumitomo, H. Yanagi 106

Annealing effect for La_xC_{60} thin films
T. Terui, K.A. Williams, Y. Fujikawa, T. Arai, S. Mashiko, Y. Maruyama 113

Organic molecular beam epitaxial growth of substituted phthalocyanine thin films – tetrapyridotetraazaporhyrins on alkali halide (100) surfaces
D. Schlettwein, H. Tada, S. Mashiko 117

Elsevier Science S.A.

Aggregation mechanism in fullerene thin films on several substrates
K. Yase, N. Ara-Kato, T. Hanada, H. Takiguchi, Y. Yoshida, G. Back, K. Abe, N. Tanigaki 131

Raman spectroscopy of pristine and doped single wall carbon nanotubes
A.M. Rao, S. Bandow, E. Richter, P.C. Eklund 141

Initial states of epitaxial growth of vanadyl- and titanyl-phthalocyanines on MoS_2 cleaved surfaces
Y. Fujikawa, S. Mashiko 148

Fluorescence quenching induced by injected carriers in organic thin films
H. Hieda, K. Tanaka, K. Naito, N. Gemma 152

Spin dependent tunneling in 80NiFe/LB film with ferrocene and tris(bipyridine)ruthenium derivatives/Co junctions
Y. Ando, J. Murai, T. Miyashita, T. Miyazaki 158

Grain size of a hard molecule-based-magnet of manganese porphyrin-tetracyanoethylene charge transfer salt
K. Nagai, L. Jiang, T. Iyoda, A. Fujishima, K. Hashimoto 165

Molecular-scale structures of Langmuir–Blodgett films of fatty acids observed by atomic force microscopy (II) – cation dependence
N. Sigiyama, A. Shimizu, M. Nakamura, Y. Nakagawa, Y. Nagasawa, H. Ishida 170

Measurements of adhesive forces on a polytetrafluoroethylene (PTFE) film and glass surface by mapping force curve
H. Suzuki, S. Mashiko 176

Direct structural observation of liquid molecules in single picoliter microdroplets using near-infrared Raman microprobe spectroscopy combined with laser trapping and chemical-tomographic imaging techniques
K. Ajito 181

Development of a single molecule optical probe
W. Tan, X. Wang 189

Studying the surface of soft materials (live cells) at high resolution by scanning probe microscopy: challenges faced
J.A. DeRose, J.-P. Revel 194

Influence of electrostatic forces on the imaging process in scanning tunneling microscopy
R. Schlaf, P.G. Schroeder, M.W. Nelson, R. Stübner, S. Tiefenbacher, H. Jungblut, B.A. Parkinson 203

STM studies on nanoscopic structures and electric characteristics of alkanethiol and alkanedithiol self-assembled monolayers
K. Kobayashi, T. Horiuchi, H. Yamada, K. Matsushige 210

Structure and crystal growth of low molecular weight polyethylene vapor-deposited on polymer friction-transferred layers
Y. Ueda, M. Matsushita, S. Morimoto, J. Ping Ni, H. Suzuki, S. Mashiko 216

Structure and orientation control of organopolysilanes and their application to electronic devices
S. Furukawa 222

Oriented thin films of conjugated polymers: polysilanes and polyphenylenes
N. Tanigaki, H. Kyotani, M. Wada, A. Kaito, Y. Yoshida, E.-M. Han, K. Abe, K. Yase 229

Molecular switching in phospholipid-azobenzene mixed monolayers by photoisomerization
X.B. Xu, Y. Majima, M. Iwamoto 239

Second harmonic generation of dipolar dendrons in the assembled thin films
S. Yokoyama, T. Nakahama, A. Otomo, S. Mashiko 248

A new approach to light-harvesting with dendritic antenna
T. Aida, D.-L. Jiang, E. Yashima, Y. Okamoto 254

Enhanced luminescence of lanthanide within lanthanide-cored dendrimer complexes
M. Kawa, J.M.J. Fréchet 259

Structures of $Ni(dmit)_2$ salts of lithium or ammonium included in crown ether assemblies
T. Akutagawa, T. Nakamura, T. Inabe, A.E. Underhill 264

Electrochemical recognition and immobilization of uranyl ions by polypyrrole film doped with calix[6]arene
K. Kaneto, G. Bidan 272

Photoconduction of a mesogenic long-chain tetraphenylporphyrin in a symmetrical sandwich-type cell
Y. Shimizu, T. Higashiyama, T. Fuchita 279

Self-organization approach to organic/inorganic quantum-well based on metal halide-based layer perovskite
M. Era, K. Maeda, T. Tsutsui 285

Thin film devices for all-optical switching and processing via quadratic non-linearities
G. Assanto, G.I. Stegeman, R. Schiek 291

Morphology dependent resonant lasing of a dye-doped microsphere prepared by non-linear optical material
T. Takahashi, S. Matsuo, H. Misawa, T. Karatsu, A. Kitamura, K. Kamada, K. Ohta 298

Polymeric optical waveguides for optical interconnections
M. Hikita, R. Yoshimura, M. Usui, S. Tomaru, S. Imamura 303

Optical Kerr effect measurements for organic multilayered structures
Y. Imanishi, S. Ishihara 309

Author Index of Volume 331 314

Subject Index of Volume 331 315

For more information on *Thin Solid Films*, please visit our website at:
http://www.elsevier.nl/locate/tsf

The publisher encourages the submission of articles in electronic form thus saving time and avoiding rekeying errors. A leaflet describing our requirements is available from the publisher upon request